

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
21 May 2004 (21.05.2004)

PCT

(10) International Publication Number  
WO 2004/041124 A1

(51) International Patent Classification<sup>7</sup>: A61F 2/00, A61B 5/20, A61M 37/00

(21) International Application Number:  
PCT/IL2003/000915

(22) International Filing Date:  
4 November 2003 (04.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
152630 4 November 2002 (04.11.2002) IL

(71) Applicant (for all designated States except US): INNOVENTIONS INC. [US/US]; 7420 Cahill Road, Edina, MN 55439 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): YACHIA, Daniel [IL/IL]; 17-B Yehuda Hamaccabi Street, Herzliya Pituach, 46762 Herzliya (IL). HIRSZOWICZ, Eran [IL/IL]; Aluf David Street 171, Ramat Chen, 52236 Ramat Gan (IL).

(74) Agent: REINHOLD COHN & PARTNERS; P.O.B 4060, 61040 Tel Aviv (IL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

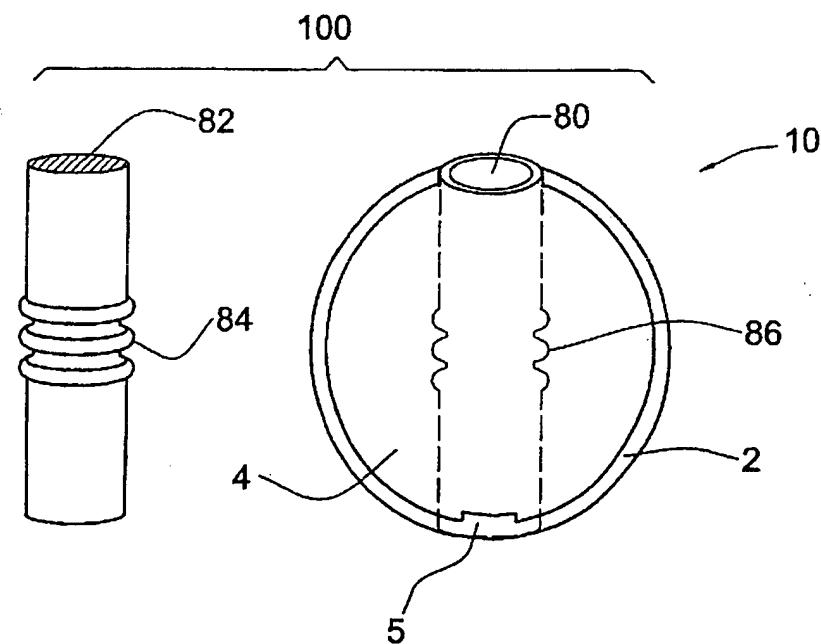
(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPLANTABLE DEVICE WHICH IS FREELY MOVABLE IN A BODY CAVITY



(57) Abstract: An implantable medical device (10) for insertion into a body cavity. The device comprises an expandable balloon having a toroidal shape defining a hole (80), and an insert (82) configured to be received and secured in the hole. The device may be used in a method for treating urinary incompetence, a method for releasing a substance in the body, a method for monitoring a body cavity, or a method for imaging a body cavity.

# INTERNATIONAL SEARCH REPORT

PCT/IL 03/00915

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: 33-38 because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4925446	A	15-05-1990	AU WO	3873489 A 9000369 A1		05-02-1990 25-01-1990
US 6398718	B1	04-06-2002	AU WO	6629301 A 0195829 A2		24-12-2001 20-12-2001
US 2002151923	A1	17-10-2002	WO	02083195 A2		24-10-2002
US 2002082551	A1	27-06-2002	US AU AU CA CA EP EP WO WO JP JP US US	6293923 B1 3189100 A 3320200 A 2365447 A1 2365452 A1 1161199 A1 1161200 A1 0054701 A1 0054702 A1 2002538888 T 2002538889 T 2002055730 A1 2002165427 A1		25-09-2001 04-10-2000 04-10-2000 21-09-2000 21-09-2000 12-12-2001 12-12-2001 21-09-2000 21-09-2000 19-11-2002 19-11-2002 09-05-2002 07-11-2002

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 A61F2/00 B5/20 A61M37/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 A61F A61B A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 925 446 A (GARAY GARBIEL L ET AL) 15 May 1990 (1990-05-15)	1,2,5,7, 9,10,12, 13,19, 24,26
Y	column 5, line 20 - line 65 figure 5	3,4,6,8, 11, 14-18, 20-23, 25,27-32

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&\* document member of the same patent family

Date of the actual completion of the International search

4 March 2004

Date of mailing of the International search report

17/03/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3016

Authorized officer

Franz, V

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 398 718 B1 (YACHIA DANIEL ET AL) 4 June 2002 (2002-06-04)	1
Y	the whole document	3, 4, 6, 8, 11, 14-18, 20-23, 25, 27-32
X	US 2002/151923 A1 (HOLZER ASHER) 17 October 2002 (2002-10-17)	1, 2, 5, 7, 9, 19, 20, 24-26
	figure 2 paragraphs '0058!, '0059!	
A	US 2002/082551 A1 (YACHIA DANIEL ET AL) 27 June 2002 (2002-06-27) the whole document	1-32
	-----	